FREE BANKING AND THE MONOPOLY IN MONEY

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I. INTRODUCTION

The aim of this study is to show that the American money and banking system could have been better regulated by free competition than it has been by government. Under a regime of unfettered competition in note issue, the banking system would automatically produce a uniform, [redacted] self-regulating, and stable currency redeemable in gold and based upon secure bank assets.

The idea of unregulated banking is unpopular with economists. Yet the most successful money systems, like those of Scotland and New England in the early 19th century, were those least subject to government interference. The record of government controlled systems, created with an eye towards easing treasury financial burdens, has been incomparably inferior: to the extent that these systems avoided disaster they did so by imitating, often inadvertently, the arrangements for note issue that would have automatically arisen under free banking.

But this imitation, where it occured, was never complete. As long as banks of issue operated under the authority of a national government they could pursue uniform (non-competitive) interest policies, thus allowing arbitrary expansions and contractions of credit. Reckoning would come belatedly by way of international gold movements. The inevitable results would include contraction or inflation with consequent disruption of employment. Such was

the situation under the Federal Reserve System (before it relinquished ties to gold entirely), which presided in its early years over the calamatous credit boom and collapse of the 1920's. Economists familiar with the principles of sound banking warned of the inherent dangers of the system, but their warnings were ignored in favor of popular public sentiment, which perceived government as the cure, rather than as promoter, of the dangerous "money trust."

Today few economists recognize the root of our monetary dilemmas to be state intervention; nearly all believe in the necessity of government control. The doctrine of "free trade in money and banking" has, however, lately been resurrected in the "radical" proposals of Professor Hayek.[1] But there is nothing new about these proposals at all; their essentials were appreciated by a number of 19th century authors,[2] only to be forgotten in the tide of authoritarian ideas that came to dominate 20th century reform.

In my study I propose to revive old ideas, along with more modern insights, to demonstrate the virtues of complete monetary freedom. I will present a brief theory of free banking with competing banks of issue and review, in light of this theory, the historical development of America's monopoly in money.

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II. THE THEORY OF FREE BANKING

Requisites of Competition

"Free" banking implies more than just unlimited charters.* It demands, first of all, that even un-chartered (that is, private or unincorporated) banks be allowed to do business. Such banks present no special danger. Indeed, their unlimited liability would favor them in a climate generally suspicious toward banks. Second, and most important, free banking requires that government authorities refrain from interfering with bank management in any way whatsoever, whether such interference is desired by the banks themselves or not. The greatest banking disasters in American history were due, not so much to restriction of charters, but to other regulations imposed upon bank management.

Law has only one function in free banking. That is the enforcement of private contracts drawn between banks and their customers.

There is no question that individual banks within an unregulated system will fail, just as firms within any industry will fail as a consequence of poor or shortsighted management. Means could be devised to minimize the distress caused by such failures, either through the private system or otherwise. But what is more important is the soundness of the free banking system as a whole: its implications regarding monetary stability, economic growth, and the trade cycle. The remainder of this section examines the mechanism of competition applied to money and banking.

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*That it should be regarded in this narrow sense is due to confusion with the American experience with so-called "free banking" in the 19th century. An analysis of the true nature of the American "free banks" appears in the third section of this investigation.

Money and Bank Credit

Under free competition, money begins as a commodity, the selection and value of which is determined by the marketplace. The quality that makes for a useful money is saleability. Saleability itself arises out of other traits including preciousness, durability, transportability, and fungibility. Such qualities were responsible for the use of gold and silver as money in early societies. The former had become the universal money of the world when its use was prohibited by governments early in the present century. Gold was broadly preferred as a general medium of exchange.

In a developed economy credit instruments largely displace cash. By effectively increasing the saleability of <u>all</u> goods, they permit exchange to occur without costly movements of coin. Bank credit, the most important type, is represented by checks and bank notes. Bank notes and coin, including fractional coin, comprise the currency, or "hand-to-hand" money. They are "money" in a loose sense, payable, along with checks, upon demand for money proper, meaning gold coin or "specie". Being substitutes for money, credit instruments may directly influence its value in exchange; and their supply, unlike the supply of gold, is highly elastic.

Capital and the Trade Cycle

In the imaginary capital market of a pure barter economy present goods are exchanged for future goods, the latter occurring as claims to the proceeds of investment and production. The rate of exchange between present and future goods reflects individual time-preferences and is embodied within the "natural" rate of interest.[3] Since investment can, in this moneyless situation, only proceed according to the

availability of real capital goods, the "natural" rate of interest tends to be an equilibrium rate and the structure of production always reflects the structure of available capital; that is, investment proceeds according to the supply of intermediate goods voluntarily provided to support it.

This hypothetical situation, while promoting a desirable equilibrium, is decidedly primitive. The extent of savings (and, consequently, of investment and production) is small; exchange is inefficient and the productivity of capital is correspondingly low. The introduction of money leads to well-appreciated improvements, but is also a source of new problems. Exchange in the capital market now occurs through the medium of money. The "money" rate of interest may differ from the natural rate, because it reflects changes in the supply of money unrelated to changes in the supply of capital goods. This differential is eventually corrected through a general adjustment of prices, but in the intervening period investment is artificially influenced: a money rate below the natural rate encourages borrowing and investment beyond the level warranted by available capital goods; an artificially high money rate results in underinvestment, idleness of goods, and unemployment.

Under a regime of bank credit distortions in the money rate may be especially protracted. Changes in the supply of bank credit--of money substitutes--may, unlike changes in the supply of commodity money, be extensive and continuous. Bank credit may be injected or withdrawn, under certain circumstances, arbitrarily. Its immediate effect, unlike, for example, the effect of a new gold discovery, is felt almost exclusively in the capital market, where bank credit is

created. In the more relevant case, that of inflation, bank credit is continuously supplemented, racing, for a time, ahead of market price adjustments. The existence of a discrepency between the natural and money rates is not automatically perceived by the public, and it is only once prices have continued to rise for some length of time that an "inflation premium" attaches itself to the money rate. Because of this delay in the adjustment of expectations the money rate is held below the natural rate for an extended period. The return to equilibrium is therefore forestalled. Malinvestment proceeds to catastrophic levels, and correction, which must ultimately occur, takes form in the phenomena of crisis and depression known as the "trade cycle."[4]

Thus the avoidance of trade cycles is seen to depend upon an equivalence between the demand for loanable funds and their provision via real savings. This equivalence exists only when the supply of bank credit corresponds with the supply of real capital goods, where these in turn are in accordance with the supply of (claims to) future goods, which constitute the demand for loanable funds. In reality, however, the concept of the "supply" of capital goods is empty. Capital is heterogenous; its quantity cannot be measured except in value terms. Without appeal to market prices it is impossible to say whether three picks and two shovels represent more or less capital than five picks and one shovel. But market prices are themselves monetary phenomena, affected by monetary disturbances. It is therefore materially impossible for bankers consciously to adjust their outstanding loans according to the physical volume of capital goods. They are neither capable

nor interested in doing so. At best they may confine their lending according to the availability of "liquid" assets, i.e., commercial paper. But here again monetary forces intervene, and the availability of liquid assets ceases, under most circumstances, to be a dependable guide to bank credit expansion. We shall see that appeal to the rules of liquidity may affect proper control of the credit supply only passively, and that it does so only when there is unhindered competition in note issue.

From this brief discussion it should be apparent that the problem of conscious regulation of bank credit is merely a special case of the general impracticability of centralized direction of production. Just as farmers are incapable of determining the "correct" supply of wheat except through their reaction to the market stimuli of profit and loss the bankers are unable to establish a "correct" supply of bank credit outside of competitive circumstances. For this reason all attempts to administer the supply of bank credit via a central bank are doomed to failure. The problem is one of extra-market economic calculation, and is no more likely to be successfully resolved in the case of bank credit than it has been for any other service or commodity.

<u>The Vicious Cycle</u>

Suppose bank credit is excessively cheap. We shall defer for now a discussion of how this might in practice come about, asserting for the time being that there has been, for example, an increase in the natural rate of interest unmatched by any change of market rates. Thus bank interest rates are artificially low, and borrowing is stimulated. Eventually prices begin to rise

due to the influence of excess credit. This generates additional demands for media of exchange, while at the same time encouraging lending and borrowing for speculation. A "vicious cycle" of loan expansion is thus generated. Bank credit elasticity becomes a culprit; credit, under certain circumstances, might be extended indefinitely to meet increasing demands at an unchanging interest rate. In practice, however, this does not occur. At a certain point the bankers hesitate. There is a loss of confidence. Reserves have reached their limit and gold, following price increases, begins its exodus. Lending ceases, and the cycle ends with panic and collapse.

The availability of liquid assets presented to the banks for discount has not, in this hypothetical case, been an effective source of restraint. The nominal volume of bills receivable, of stock and bond collateral, and of commercial paper is a function of monetary as well as real factors. Only one bank asset -- one which must, under free banking, be present in bank portfolios at all times to ensure convertibility of notes -- cannot be created out of new credit; only gold can be an ultimate source of control.

Expansion by a Single Bank

If a vicious cycle of credit expansion is possible, how might it in practice be set in motion? Let us begin where the previous example ended. There has been collapse, followed by a period of depression. Lending has been curtailled, and prices have fallen from their former, inflated levels. Interest rates have been forced back into alignment, for the time being, with the realities of the capital market; the money rate of interest, in other words, corre-

sponds with the natural rate, and there is no further monetary pressure upon prices. Now the important question is "how may the money rate again become divorced from the natural rate?"

Suppose we begin our inquiry by examining the procedure of a single, note issuing, competitive bank. The bank's notes and checks bear its name, and are thus distinguishable from the credit instruments of its competitors.[5] Otherwise, they are similar, being expressed in terms of the same unit of account, which is to say that they are exchangeable in common weights of gold, as established by convention in the marketplace.

At first the bank's interest rate is consistent with the rate of its competitors, and the extent of its outstanding credit is not disproportionate. At the clearinghouse notes and checks drawn from competing banks are cancelled against one another. Adverse balances must be paid off in specie. As long as credit policies are uniform among competing banks, actual movements of gold are minimal, existing only to offset short-term imbalances. Now our bank seeks to expand its credit. There has been no prior increase in demand for its notes. Instead its management ignores the rules of sound practiceand elects to increase circulation, thinking thereby to enhance its profits, by lowering the bank's interest rate and by extending loans on the basis of assets of questionable solvency and liquidity.

Initially this program seems successful. New borrowers are attracted by the lower rate, and the prospects for greater profit appear good. Then the clearing system begins to take its toll. The expanding bank's notes and checks accumulate at the clearing-

house. They are not offset by corresponding increases in issues by other banks. Adverse clearings arise. The bank must pay the balances with gold. Its reserve position, formerly precarious, becomes untenable. It seeks to liquidate its assets, but this is not enough. As long as it maintains a low interest rate the demand for its credit will continue unabated. Many of its more recent loans will, in addition, be difficult to liquidate without loss. Thus the bank is forced to curtail lending and to restore its interest rate to the prevailing market or natural rate. Not to do so would mean suspension and, in consequence, bankruptcy. The expansionary policy of our single bank has thus failed to generate a vicious cycle. Acting alone it has been unable to bid up prices and, hence, the nominal demand for loanable funds. Its efforts were confounded by the existence of a gold-standard and by the resulting contest over reserves and circulation waged at the clearinghouse.

Systematic Cheapening of Credit

Suppose that two banks, or a larger group, decide to lower interest rates in unison. If the bulk of transactions of the customers of the cooperating banks are undertaken exclusively within this group, clearings generated through the new extensions of credit will largely offset one another. However, there will still be leakages; new credit will eventually find its way to banks not engaged in the cheap-money policy. It will be used, for one thing, to pay off higher-interest loans previously negotiated with non-expansionary banks. Moreover, there will still be a limited demand for media of exchange. Thus the reserve losses of the cooperating

banks are delayed, but not avoided. Curtailment must occur, and the extent of credit is again reduced to reflect real conditions in the capital market. The vicious cycle has once again failed to occur. The continued presence of competition has made sustained departure from the natural rate of interest impossible, and has thus effectively limited the expansion of credit.

The situation is different if <u>all</u> banks within a system seek to cheapen their credit in unison. Now there is no basis for adverse balances within the system. The vicious cycle may take effect in full form, as a <u>general</u> expansion of credit places upward pressure upon prices. Expansion may continue for months, or perhaps years. Adjustment will, however, eventually occur, and once again it will be due to movements of gold. The only difference is that these gold movements are no longer effected internally. Instead, they are sponsored from abroad. The external mechanism is entirely analogous to the internal one, except that credit balances are realized, not by domestic, but by foreign banks, and there is some delay in their appearance. Rising prices, in the meantime, have produced a decline in exports, thus intensifying gold losses. The final contraction is accompanied by collapse, and the return to equilibrium, complicated by price and investment distortions induced during the period of expansion, is likely to be slow and painful.

<u>The "Real-Bills" Doctrine</u>

Proponents of the "real-bills" doctrine maintained that the supply of bank credit could be effectively controlled by limiting credit extensions to the discount of short-term commercial bills.

Concentrating upon the need to restrict lending in accordance with the availability of liquid assets. they ignored the possibility of a vicious cycle, and thus failed to recognize the importance of maintaining competition in note issue. It is only under competitive conditions, with strict enforcement of convertibility, that the appeal to liquidity leads to the extension of bank credit in accordance with the realities of the capital market. When liquidity rules are ignored under competition, the derelict institutions are immediatly faced with gold losses and the need to curtail lending. Thus market interest rates are kept in line with the natural rate, and monetary disturbances are avoided. In contrast, if competition is undermined, pressure to maintain money rates in line with the natural rate disappears, and the stipulations of the real-bills doctrine cease to apply.[6]

<u>Worldwide Credit Collusion</u>

Once the assumption of competition is abandoned there is no reason, as far as theory is concerned, for the possibilities of excess credit expansion to limit themselves at the national level. There may be <u>international</u> agreements to cheapen credit. It is only possible to hypothesize regarding the consequences of such agreements. Competition between banks no longer exists to induce an end to the vicious cycle. Instead, there is vast inflation, at once due to and calling forth further extensions of credit. Price distortions become manifest, as do malinvestments of capital. The entire superstructure of production is rendered unstable, and can only be supported through continued injections of credit.

But no such scenario could continue indefinitly. The currency is rapidly depreciating. Eventually this depreciation ceases to be regarded as a temporary phenomenon. The public looses faith in the instruments of credit -- a premium on coin develops, and there are widespread demands for redemption. The banks cannot possibly meet such demands; they could not even under normal credit conditions. They must suspend payment. A system of inconvertible "paper money" is thus established. But there is still no stopping the depreciation of the currency. Consumers, not wishing to hold it, engage in a "flight to real values." Trade is reduced to a state of barter and speculation, and normal productive activity approaches a standstill.

Control by Competition

Thus the sole impediment to cataclysmic expansion of bank credit is the absence of a worldwide, uniform interest policy. As long as rates are established by competition rather than collusion there is no danger of excess. In the same manner the absence of formal agreements among banks-of-issue within a single nation is sufficient to prevent domestic episodes of inflation and collapse. The possibility of a succesful voluntary conspiracy among numerous banks-of-issue is remote; such cooperation must be compelled through legislation. But there is another expedient. This is the centralization of note issue; its restriction to a single, central bank or its relegation to several regional banks. From here it is but a small step to the establishment of uniform policy; indeed, in the case of a single, national bank-of-issue that step

is automatic. Monopolization of note issue is thus seen to go hand-in-hand with the potential for unlimited expansion, or contraction, of bank credit. This is the most important, but by no means the only, way in which the competitive banking mechanism may be undermined.

Methods of Sabotage

The success of free banking, of competition among banks-of-issue, requires only that government refrain from obstructing it with regulations. The more common rules imposed upon the banking industry are purely destructive in nature. They include 1) restriction of the number of banks; 2) fixing of reserve ratios; 3) requirement of long-term loans; 4) official toleration of suspension; 5) legal tender laws; 6) artificial assistance of credit; 7) suppression of note issue; 8) open-market operations.

Restriction of Banking Firms

Restriction of the number of banks has many of the same effects as restriction of competition in any other industry -- the industry's product looses quality; its total capitalization is reduced. In the case of banking, restriction reduces the security of outstanding credit, forcing it to be supported, in most cases, upon a smaller foundation of bank capital. Should individual banks seek to cheapen and expand their credit under such a restricted system, the competitive mechanism that must eventually lead to the reflux of their notes and checks will function less efficiently. Banks will be more inclined to pursue reckless policies. There will be greater occurances of failure, each involving a larger number of depositors and note holders and a smaller reserve of equity. The

entire system is thus rendered more unstable and vulnerable to crises.

The restriction of banking firms does <u>not</u> reduce the extent of bank credit expansion. Rather, it encourages additional expansion by weakening the means of control inherent in competitive circumstances.

Akin to the restriction of banking firms are laws which prohibit branch banking, including interstate and international banking. Such laws make effective competition impossible by preventing the establishment of an integrated clearing system, thus making the return of notes and checks to their issuers highly inefficient.

<u>Fixing of Reserve Ratios</u>

The legal fixing of reserve ratios seeks to guard against dangerous expansions of bank credit by tying liabilities to a fixed percentage of specie holdings. In practice, however, fixed ratios undermine the elasticity of bank credit and thus make its proper management impossible.

Under unregulated conditions cash and other liquid assets are interchangeable. It is true that some minimal amount of cash must be present in the banker's portfolio at all times in order to meet demands for conversion. In this regard cash is uniquely liquid and has no real substitutes. But its proportion relative to other assets should still be subject to adjustment by bank management according to the demands of the public. When the demand for credit grows greatly in proportion to gold holdings, more paper assets (commercial bills, I.O.U.'s, etc.) are purchased and holdings of these increase relative to holdings of gold. At the same time

interest rates are increased to reflect greater leveraging and the resulting need for restraint. Credit thus continues to be made available while the extent of its demand is checked by the higher rates. When the demand for credit is dwindling, holdings of paper assets are reduced, reserves are stronger than necessary, and rates are lowered. High rates attract deposits from abroad, while low rates induce gold outflows. Reserves adjust passively to changing conditions in the capital market. Bank management adjusts interest rates according to perceived shortages or surpluses of specie, attempting at all times to maintain outstanding liabilities at their maximum, safe level. Competition assures that no bank can overly cheapen its credit. Under these circumstances the gold reserve ratio takes care of itself.

Within the above mechanism there is no justification for a fixed ratio of cash reserves to outstanding bank credit. The effect of such a ratio can only be perverse; it can only function to undermine elasticity. Under mandatory reserve requirements short-term adjustments of outstanding bank credit must await international movements of gold. They cannot anticipate them. At times of extraordinary need credit cannot be extended, even at high rates. Instead the rules call for curtailment, with the consequence of crisis and collapse. Reserves are of no use if they cannot be lent.

In contrast, when reserves exceed official requirements there may be a tendency for bankers to extend loans to their legal limit. This is especially true wherever the banks are able to rely upon

the assistance of centralized institutions which intervene at times of strife as "lenders of last resort." Under such circumstances the rules of sound banking are neglected, and credit may be extended despite a lull in demand. Commerce has no need for new credit of this sort, which instead goes into long-term or speculative investments. But artificially lowered interest rates eventually sponsor gold outflows. When their reserve positions suddenly change the bankers are unprepared. Burdened with illiquid assets, they stumble into the panic they themselves helped to promote.

Mandatory Long-Term Loans

Recognizing the importance of liquidity the danger of legal quotas for long-term lending should not require explanation. Nevertheless, such quotas are among the most common of restrictions imposed upon banks. Designed to appease the desires of particular political pressure groups, they include obligatory loans on real-estate, accomodation loans, loans for agriculture, churches, and, most significantly, long-term loans to the government itself. These last are reminiscent of banking regulation in the days of the Lombards and the Bank of Amsterdam. It was loans to the Dutch government that eventually ruined the latter firm. Required lending to governments continues as an aspect of bank regulation in modern times. It has contributed to the displacement of the more tried-and-true tradition of lending mainly on the short-term. Sound banking demands attention to the liquidity of bank assets; specifically, it requires the matching of the maturity dates of assets and liabilities. At times of crisis long-term collateral can only

be liquidated at tremendous sacrifice. Its solvency is never guaranteed, and it is no substitute for a continuously maturing stream of short-term paper.

Toleration of Suspension

There is one area of legal supervision that, in contrast with these others, is entirely desirable and without which the competitive banking system is doomed to fail. This is the enforcement of bank note convertibility, into gold or otherwise, according to the contractual stipulations of the banks-of-issue themselves. With the strict enforcement of this single provision firmly in place, other schemes of government "insurance" and regulation are rendered unwarranted. Yet it is in precisely this aspect of bank supervision that governments have persistently failed. Indeed, more often than not, suspensions of specie payment have been promoted by governments themselves, and government toleration of suspension has been an unremitting constant in the monetary histories of all nations.

Convertibility is essential to the prevention of excess extensions of bank credit. While "real-bills" considerations suggest safe limits to credit expansion, it is the right to convertibility which on last analysis enforces prudence on the part of bankers, who might otherwise issue credit in complete disregard of available real savings. Whenever the real-bills doctrine is neglected, it is movements of gold, sponsored by the right to redemption, that intervene to restore order to the credit system. The rule of convertibility does not, under competitive circumstances, confound the elastic nature of bank credit. Rather, it regulates it, by acting

to prevent abuse and by correcting such abuse once it has in fact occured.

Legal Tender

The devise of legal tender is nothing more than a means by which governments prepare the way for a general suspension of payments through the legal sanctioning of inconvertible paper-money. When legal tender laws are passed mere toleration of suspension is replaced by an outright divestiture of rights. Public refusal of bank notes is made illegal; their acceptance becomes a matter of compulsion.

The virtue of competitive note issue under free banking is that it permits the evolution of a superior system of currency by exposing numerous alternatives to the test of free choice. The imposition of legal tender laws can have only one effect. That is the forced replacement of a superior currency by an inferior one. Legal tender legislation is no prerogative of democratic government; it is an advanced form of legal tyrrany.

Artificial Assistance of Credit

Apart from toleration of suspension and the imposition of legal tender laws, there exist many more subtle ways in which governments may artificially assist the credit of banks. Such artificial assistance creates an impression of solvency where none may in fact exist. Thus it enhances the circulation of favored institutions while reducing public scrutiny of their assets.

Bank charters are the most obvious form of such assistance. Because they are limited by the State, they are perceived by the public as official endorsements -- as guarantees of solvency. In

fact, as has been shown, the restriction of bank charters can only worsen the quality of bank credit. Such restriction must not be tolerated, both because of its direct effects and because of the misconceptions it conveys to the public.

Schemes of government note and deposit "insurance" are similarly deceptive and unnecessary. In an unregulated system no bank can achieve circulation of its notes except by virtue of its own, unassisted credit. Government schemes, including "bond-deposit", "safety fund" and other insurance measures permit banks whose own resources might be judged insufficient to warrant the trust of depositors and noteholders, to establish accounts and circulation on the basis of bureaucratic insurance arrangements sanctified by government. More often than not, such government arrangements do not provide protection at all. Confounding ultimate security with liquid means for redemption, they fall back upon fallacies first exposed in the infamous collapse of John Law's Mississippi Company.

Suppression of Note Issue

Bank credit may be extended either in the form of bank notes or as new deposit liabilities. Deposit holders may seek to convert their deposits to notes at any time, and the bank must be free to meet such demands without hindrance. Flexibility between note and deposit liabilities is an essential component of a stable bank credit system.

The superiority of convertible paper currency and token coins over gold in normal, domestic exchange is no longer a matter of dispute. Depositors are attracted to banks chiefly by the opportunity to exchange a less convenient currency for a superior one.

Thus the ability of banks to lend is contingent upon their ability to supply notes, note issue being an essential prerequisite to the attraction of specie.

When note issue is monopolized all banks are forced to share a single source of paper media which they must accept and re-issue in common. As a result paper notes come to share the position formerly held exclusively by gold in bank reserves. The banks are made less determined to compete against eachother for specie, being equally anxious to augment their supplies of bank notes, the latter being treated now as assets rather than as ~~obligations~~ liabilities. Only the public demand for coin continues to compel the banks to maintain minimal proportions of specie, and even this will cease to be true wherever bank notes have been authorized as legal tender. Thus the monopolization (or nationalization) of note issue, which allows arbitrary manipulation of bank reserves, is tantamount to absolute, albeit imperfect, control over the supply of bank credit as a whole.

Many words have been wasted in defending the so-called "need for elasticity" in banking systems. In fact, the free substitutability of notes for deposit credits, discussed above, is the only sort of "elasticity" that is actually necessary or desirable. And so far as this kind of elasticity is concerned arguments that it can only be provided by central banking are the opposite of the truth.

Under free banking the currency of the public consists primarily of bank notes, while bank reserves take the form of gold. Under central banking, or any system based upon monopoly note issue, the currency of the public consists primarily of notes which are also,

for practical purposes, the reserve assets of banks in the system. The bank notes in a monopoly system are therefore "hybrid money." When the public demand for bank notes, for pocket money, increases, reserve assets are reduced, and credit as a whole must be curtailled pending action by the central bank. Similarly, if the public demand for pocket money balances falls off, reserves are augmented and credit expansion follows. The central bank is powerless to control the total supply of credit, except in a gross sense, under these circumstances, even (or, indeed, especially) if it maintains 100% specie reserves against its own liabilities. Yet if it attempts to offset the changing requirements of the public by itself altering its total fiduciary issues it invites all of the dangers of direct credit multiplication alluded to in the above sections of this study. All of this explains the inherent instability of credit under monopoly note issue, and describes a major element of the general impossibility of a rational central banking policy.

Open-Market Operations

A general expansion of credit through increased discount of commercial bills is possible only if banks proceed in unison to lower their discount rates so as to augment the demand for short-term loans. A single bank pursuing a below-market discount policy eventually finds itself confronted by large debit balances at the clearinghouse.

Similarly, open market purchases of government securities cannot be a basis for credit expansion when extended by any single bank. However, if such purchases are coordinated, if they are under-

taken in concert by all banks within a system, they allow expansion of credit in a manner entirely analogous to that forthcoming from a uniform lowering of discount rates. Such coordinated purchase of government paper is never a phenomenon of the free marketplace. It must be arranged compulsorily by members of a central planning board. It is possible only through government intervention.

All of these restrictions and regulations share in common their contribution toward a single goal. This is the erosion of the competitive currency mechanism; its replacement by an arbitrary system controlled by the State. The history of bank regulation in America is the history of just such an erosion. It is a history of restriction, prohibition, and compulsion; of the denial of free banking and of its replacement through centralization and nationalization of note issue. It is the story of the destruction of the credit system and of its destroyer, the monopoly in money.

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III. THE MONOPOLY IN MONEY

Politics and Banking

Government interference in banking began with the earliest banks. The banking houses of the Medici in Italy were agents to the Apostolic; the Bank of Amsterdam was forced to lend most of its capital to the government-controlled Dutch East India Company; and later central banks, including the Bank of England, enjoyed monopolies of circulation in their regions. Monopoly privileges, including toleration of suspension, were guaranteed in exchange for mandatory loans to church or state. Non-chartered banks were correspondingly outlawed.

The primitive circumstance of early banks reflected in part the mercantalist notions of their day. Later, the theories of free-trade became broadly victorious over arguments for state control of business -- but not so far as banking was concerned. Banks were exempted from the free-trade movement. This was due in part to the hesitation of the public. Neither appreciating nor understanding the positive contributions of banking (sentiments encouraged by the rather miserable performance of state-controlled banks), they feared its multiplication under free competition. Banks were "dangerous and monopolistic." Therefore, it was better to have as few of them as possible.

America was no exception. Here, also, regulations dominated the development of banking. However, the absence of federal control throughout much of the 19th century, combined with mis-understood state-run experiments in "free banking", led theorists and historians to conclude mistakenly that the American system was essentially "free":

that it was a product of unregulated competition. These writers regarded early episodes of fraud, wildcat banking, inflation, and collapse as counterparts of a free-market currency. To them America demonstrated, once and for all, the "failure" of competitive banking and note issue. They ignored the damaging effects of regulation, calling further intervention "inevitable."

Banking before Federalism

The money system of colonial times was in a deplorable state. There was a severe shortage of currency, aggravated by the hoarding of specie by the sovereign and by the limited development of banking. Colonial experiments in inconvertible "paper money" only worsened the situation, since most of these issues were allowed to depreciate to worthlessness.

Private banks, while scarce, were not illegal: banking had not yet become, as it had in Europe, a privileged industry the right to engage in which remained the prerogative of government. Individualist sentiment was strong and bank charters, while desired, were not necessary.

The unprivileged American banks were also unprotected. Their founders placed at stake their own credit and sparse capital, and could not easily escape their obligations. Few had experience in banking. Instead, they appealed to common sense. Being mostly merchants themselves they lent, for the most part, to other merchants whose credit was familiar to them. Loans were strictly short-term, going mainly to supply the needs of commerce. Long-term lending, for agriculture, mortgages, and speculation, was avoided. So were loans on bonds, including government bonds. Capital, and thus savings, were still scarce, and long-term finance had to depend mainly upon

foreign investment. Long-term investments of bank-credit, when undertaken, were nearly always by-products of government compulsion.

The prudent practices of these early banks made them highly successful, and they were greatly admired in Europe. It is a credit to their inexperienced managers that, until several years after the Constitutional convention, there had not been a single major bank failure.

Two successful banks were established during the Revolutionary War. One, the Bank of North America, was chartered under the rather questionable authority of the Continental Congress in 1781. It had been sponsored to aid in the finance of the war, government attempts, including the ill-fated paper-money "Continentals", having failed. In its special role, and in regular commercial capacities as well, the Bank of North America was completely successful. Nevertheless, it remained a wholly private institution, the Congress having had no resources to contribute save their pledge of faith.

The second bank, the Bank of New York, began business without a charter in 1784. It was established "on the basis of common law tradition under which private banking was considered a business, like any other, and the issuance of notes a part of such business."[7] The Bank of New York was perhaps the strictest and most conservative bank of its time, and has survived through the present day.

Prohibition or Monopoly?

On the subject of money the Constitution was notoriously vague. The authority to issue "bills of credit" was explicitly denied to the states. But the right of Congress to issue notes and paper-money was neither authorized nor prohibited, and no mention was made whatsoever of the role of private and incorporated banks.

The purpose behind prohibition of state issues seemed clear enough: the expedient of "legal tender" finance, so disasterous before the war, had to be eliminated. But Congress felt no obligation to deny this potential means of finance to itself. The states, for their part, discovered an escape route: they could resort to exclusive chartering of incorporated banks, extracting favors from them in return and rendering them, in effect, "semi-public."

From this stage the key issue became the number of bank charters. Two main bodies of sentiment emerged. One, aligned with state treasury interests and with those of would-be bankers, sought to retain banking as a government-sponsored monopoly. The other group was predominantly agrarian. Despising all forms of paper currency, it fought to eliminate banks entirely. "The issue was between prohibition and state control, with no thought of private enterprise."[8] That banks might incorporate according to the rules of common law, with open-competition between banks-of-issue, was not even considered.

The Federal Debate

At Congress, a furious debate was waged. The Federalists, led by Alexander Hamilton, proposed a national bank, modeled after the Bank of England, to manage the public revenue and "assist the fiscal operations of government."[9] The Republicans, led by Jefferson, fought Hamilton's proposal tooth-and-nail, declaring it unconstitutional. In the end, Hamilton persevered: European experience provided a convincing precedent, and Jefferson at last yielded in hope that the federal bank might at least encourage the removal of even more repulsive state banks. The charter for the 1st Bank of the

United States was thus approved by Washington in 1791.

The final decision had not been without compromise. While assisting in government finance, the Bank was to receive no public revenues. Moreover, its monopoly would not be exclusive, for unlike the Bank of England it had to compete for circulation against state banks-of-issue. Thus it was not a true "central bank", and could not arbitrarily influence the total supply of bank-credit. It was, however, obliged to redeem its notes in specie. This it accomplished easily thanks in part to generous foreign subscriptions (mostly British) to its stock, which provided the Bank with a reserve position relatively superior to most state banks though inferior to many private ones. Thus, the Bank of the United States was able, by way of example, to exert a restraining influence on the state banks, which had to reckon with the possibility of having their notes returned by branches of the federal bank for repayment.

The Bank's management proved especially prudent: under Hamilton's leadership it avoided temptations that had ruined countless other government-controlled banks. Convertibility of its notes was strictly maintained, and it responded ruthlessly to reckless state banks by returning their notes for redemption in gold. In the end the Bank's severe policies provoked agitation against it. War with England was threatening in 1811, and state banking interests, armed with figures attesting to the heavy involvment of the enemy in Hamilton's bank, joined anti-Federalist forces in blocking the Bank's recharter. The bill for renewal was finally lost in February, 1811.[10] A huge gap in the currency supply was thus created, with only insufficiently solvent state banks left to fill it.

State Restrictions

The Congressional debate on banking was repeated in every state capital, with varied results. Monopoly became the order in the south; prohibition in the west and midwest; and in the east there was a slow trickle of charters.

From the outset of their statehoods Wisconsin, Oaklahoma, Iowa, Arkansas, Oregon, and Texas outlawed banks-of-issue. Such prohibition generally aggravated the evils it was meant to prevent. Media of exchange were necessary for trade. Where no local banks existed bank notes from neighboring territories would flood in -- especially notes of questionable value. Anti-banking states thus became collecting points for all varieties of spurious bank paper. Only the quasi-legal currencies issued by merchants and unincorporated banks ultimately save these states from complete disruption of trade. Such "private money" firms cleverly outmaneuvered legal prohibitions. Being unprotected as well as legally illegitimate, they took pains to conduct their issues with exceptional prudence.

In Oregon and California silver and gold coin were abundant and thus prevented the occurance of currency shortages that beset other anti-banking states. The resulting profits to gold and silver producers were not a detail; mining interests had been instrumental in outlawing banks-of-issue in the first place.[11]

The Constitutions of Indiana, Missouri, and Illinois officially allowed for single, state-run banks. However, none of these states excercised this option at first, prefering prohibition instead. Thus, for a while, conditions resembling those in anti-banking states' prevailed. When monopoly banks were finally established, the typical outcome was bad management followed by failure.

Those states that permitted incorporated banking made it conditioned upon the receipt of special charters. Such charters were granted not so much to relieve their holders of personal liability as to extend to them "monopoly privileges and an honorific legal status" in exchange for retributions to the local treasury.[12] In consequence bank charters remained scarce; "there persisted a strong conviction that a charter was a covenant which the grant of other charters violated."[13] A corollary step in most states was the outlawing of private (unincorporated) banks, the presence of which threatened profits on both sides of what was later referred to as the "spoils system" of bank establishment.

State banking regulations were seldom limited to mere restriction of charters. A host of more specific requirements plagued (and, on occasion, enriched) early bankers. Interstate banking was an early casualty, as was branch banking within states. As a result the return of bank notes to their issuers depended upon private notebrokers, whose activities were also repressed. Thus shielded from arbitrage, bank notes circulated in many regions at a wide range of discounts (reflecting, among other things, their distance from their source), generating great disorder. More specific stipulations included fixed reserve requirements and forced long-term loans to government, agriculture, schools, churches, and public works.[14] More dangerous than these was the haphazard enforcement of convertibility. Brokers were routinely expelled from small communities, and local noteholders demanding repayment were likely to be denounced as rogues and speculators out to sabotage the "public good." Insistence upon convertibility was regarded as tantamount to treason -- an attitude

adopted by most courts.[15]

When the charter of the 1st Bank of the United States was ended in 1811 state banking restrictions and regulations were already profuse. The federal bank had, because of its conservative management and interstate branches, exerted some restraint. When it was liquidated competition could not take its place, and the currency systems of most regions decayed rapidly. State banks, encouraged by the federal government, which borrowed extensively at generous rates to pay for the war, expanded credit dramatically, and when the British successfully raided Washington in August, 1814, a general suspension was provoked. The government continued to accept the notes of suspended banks in payment of its dues, and no immediate effort was made to restore payment. An exception to this general state of affairs was New England, where more numerous charters and fewer confounding regulations allowed competition to function. Under mutual pressure to maintain convertibility the New England banks eschewed government loans and thus avoided suspension. Notwithstanding conditions in New England, however, disruption throughout the rest of the country was sufficient to prompt demands for a second federal bank. State banking interests once again protested, only now they were overruled, and the 2nd Bank of the United States was chartered in 1816.

There was a long controversy over how to run the new bank. The newly-appointed Republican administrators, who had overseen the destruction of the 1st Bank, now lobbied for its successor to be heavily subscribed in government stock, obliged to lend to the government, and authorized to suspend specie payments. The conventional Republican

repugnance towards banks disappeared at the prospect of having one that served the needs of their own administration.

In opposition was Daniel Webster, who denounced the Republican proposals through which, he claimed, "the government is to grow rich without the obligation of repaying and is to borrow of a bank which issues paper without liability to redeem it.[16] Webster proposed an alternative bank, required to redeem its notes and under no obligation to lend to the government. Webster's proposal, however, was unacceptable to Treasury Secretary Dallas, who regarded it as insufficiently in favor of the public credit; Webster's bank, Dallas claimed, could not possibly benefit the people since "it was not forced to lend to the government." Moreover, since Webster's bank would be required to redeem its notes in specie, Dallas noted, it "would not provide a sufficient circulating medium."[17]

The end came once again through compromise. The new bank would not be permitted to suspend payment. However, the government was to be a major subscriber. In all other particulars the provisions of the bank's charter resembled those of its predecessor's. The significant change was in management, for now the Republicans, who lacked experience in and appreciation for banking, were in charge.

The 2nd Bank's Republican leadership proved disasterous. Assigned to remedy the nation's desperate currency situation, they immediatly proceeded to worsen it, violating many of the provisions of the bank's charter. The bank's capital was inadequately paid in, much of it having been purchased on the bank's own credit, and dividends were paid to stockholders, including the president and directors, who had borrowed money for their shares.[18]

The 2nd Bank was intended to promote restoration of payments by enforcing the contraction of state-credit -- but just as rapidly as state banks withdrew their notes, the 2nd Bank issued its own, thus prolonging the suspension while monopolizing the profits from overissue. The notes of the 2nd Bank had exclusive circulation in the west, where state banks were prohibited. In New England, in contrast, superior alternatives were available, and federal notes were seldom seen.[19]

The various branches of the 2nd Bank were obliged to accept each other's notes. The directors "carried to an extreme the meritorious principle that the bank with its branches constituted one integral and universal organization, each part of which must honor the obligations of every other part."[20] The result was that less prudent branches were invited to inflate, secure in the knowledge that their affiliates would bear most of the burden for their recklessness. Eventually this attitude led to the failure of the Baltimore branch. This prompted a sudden curtailment by the remaining members of the system, which led to panic in August, 1819.

The panic brought renewed agitation from the bank's detractors. The administration responded by firing the bank's original directors and president. The new president, Langdon Cheves, instituted a steady, painful contraction, thus permitting the long-awaited restoration of payments. Cheves was then succeeded by Nicholas Biddle, who at once embarked upon a vigorous campaign to win for the 2nd Bank a complete monopoly of national note circulation. With this program in mind Biddle kept an extremely tight rein on the bank's credit, thus imposing a strict and sometimes unbearable discipline upon the

state banks. Biddle's policy heightened the aggravation of the anti-banking coalition and contributed to the election, in 1828, of Andrew Jackson, a notorious hater of banks.

The first volley of the ensuing "Bank War" took shape in Jackson's withdrawal of all government deposits. Biddle retaliated by tightening credit still further -- more than was necessitated by the loss of deposits -- hoping thus to sway public opinion in the bank's favor. This strategy backfired; Jackson was reelected in 1832, and the charter of the 2nd Bank, set for renewal before the end of that term, was instead allowed to expire.

Strongholds of Competition

To summarize, the end of the 1st Bank of the United States returned the currency system to a state of chaos reminiscient of colonial times. The era began with a general suspension; witnessed a terrible panic in 1819; and culminated with a drastic crisis, and renewed suspension, in 1837. Poor conditions were promoted by disjointed and often corrupt state regulations, and those who sought relief from Congress found exasperation instead.

Only New England escaped the worst consequences of disorder. Competition, as we have seen, had evolved there as a result of a slow but continuous trickle of bank charters. Thus suspension was avoided during the war with England, and the extent of reckless credit expansion promoted by the early policies of the 2nd Bank was limited.

The panic of 1819 demonstrated, however, that great improvements were necessary even in New England. The Boston bankers were especially aware of this. The events leading to the panic had generated

vast quantities of "country" bank notes, which tended naturally to migrate towards the city, where they competed for circulation with the notes of the city banks. The country banks had few local competitors to answer to, and since branch banking was prohibited no formal system existed for the prompt return of their notes. Thus the notes of country banks remained in the city where they circulated at varying discounts, and thus became an embarrassment as well as a nuisance. With the panic this situation reached scandalous proportions, and the city bankers, concerned for both their profits and their reputations, elected to take action. Of their various attempts the most famous, engineered in the midst of the panic, was led by the recently chartered Suffolk Bank.

The Suffolk had originally intended to completely remove country bank notes from circulation by methodically collecting them and returning them to their issuers in large quantities for repayment. Profits were derived both from improved competition for circulation and from the receipt of specie at face value for notes purchased at discount. In the end, however, only the notes of insolvent banks disappeared. The Suffolk appointed itself as official redemption center for the remainders. For this purpose it required of country banks deposits sufficient to cover redemption of received notes, along with an additional $5000 contribution from each participant as basis for a "guarantee fund." With this redemption system in place discounts on country bank notes dwindled, and redemption fund deposits replaced note brokerage as a supplemental source of profits. Country banks refusing to join the system were subject to repayment raids, and it was only a mater of several years before all spurious

notes were weeded out and the entire currency of New England returned to par.

Once the Suffolk's reputation became established, the practice of pursuing recalcitrant banks to their hideouts became unnecessary. It was sufficient for the Suffolk to simply remove the names of belligerants from its list of "banks in good standing." "To be discredited by the Suffolk was virtual failure."[21] New banks were refused admission until their credit and solvency were inspected. The Suffolk could not prevent newcomers from issuing notes, but it could, and did, prevent many from gaining circulation.[22]

The often ruthless procedures of the Suffolk provoked agitation for its replacement. A competitor, the Bank of Mutual Redemption, was established in 1855 with the aid of a "special" charter contrived to convince the public that the new institution was superior. It was not, though it successfully deceived the public, and won over a majority of the country banks to its membership (thanks mainly to its more lenient policies).[23] The Bank of Mutual Redemption suspended, along with the rest of the country, at the outbreak of the war in 1861 and was, to its own good fortune, never again subjected to the test of crisis: before the war was ended both it and the Suffolk were compelled, along with all other state banks, to become members of the National Banking System, which stripped the Boston banks of their regulatory functions.

The 45 year record of the Suffolk system was not matched by any government regulated scheme. By voluntary means the Suffolk achieved the complete elimination of spurious bank-credit that even the most elaborate and punitive legal methods had failed to realize. It

survived nearly every crisis without resort to suspension, and, after the protracted panic of 1837 it had been last to suspend and first to restore payment. By thorough application of the rules of contract, without privilege or sanction from government, the Suffolk presided over America's nearest approximation to free banking, and the result was a resounding success.

The Suffolk was the most acclaimed example of a banking system controlled by a private "clearinghouse." Clearinghouse organizations continued to emerge throughout the 19th century, performing on a regional basis many routine as well as emergency functions now relegated to the Federal Reserve System. These private organizations functioned without coercion and free from intrigue, but were grievously hindered by state and federal regulations that prevented their integration.

For a time unregulated banking found refuge in the activities of the private bankers. These bankers operated without government endorsement. They were subject to full liability, and succeeded solely by virtue of their own good credit and established capital. Private banks circulated notes and extended loans alongside chartered banks in many states, providing currencies superior to those of their state-run counterparts. This successful competition was countered in most states by restraining acts and prohibitions. Some private banks, like George Smith's Wisconsin Marine and Fire Insurance Company, established in 1839, circumvented regulations and thereby spared their regions from desperate currency deficiencies. Nevertheless, by the end of the 19th century all private banks were systematically outlawed.

America's only legislative attempt to duplicate competitive banking conditions was adopted in Louisiana in 1842. The author of the Louisiana Banking Act, Edmond J. Forstall, was a New Orleans banker and a businessman -- not a politician or a lawyer. His plan minimized the role of political supervision. It required and enforced adherence to established and sound banking principles. Stress was laid upon the importance of liquid and solvent assets, with adequate security in specie. Banks were confined to short-term lending except to the extent that long-term loans could be met out of their paid-in capital stock. There was no central control of policy; competition was not overridden, though a shortage of charters had made it incomplete. The Louisiana act filled lacunae left by the absence of sufficient competitors. "The available evidence is that the system operated with distinguished success."[24] Along with the Suffolk it avoided suspension until the outbreak of the Civil War, at which juncture it earned the intense wrath of secessionists by continuing to meet its obligations to northern banks in specie.[25]

The Louisiana act succeeded grandly by mimicking free banking. Yet it saw no duplication anywhere. Few politicians could appreciate its ungenerous provisions, and few bankers would have willingly obeyed them having had the opportunity to do otherwise.

Regulations vs. Freedom

In most states laws undermined, rather than imitated, competition. The experience of New York State was somewhat above average. New York had an advantageous beginning, with relatively few banking regulations. It had been the home of the unchartered Bank of New York, one of the nation's most successful banks. But in 1804 the retrograde step was taken of outlawing private banks, and New York adopted the "spoils system" of bank charter.

The early years of chartered banking were marred by crises. The outlawing of private banks, along with the subsequent expiration of the charter of the Bank of the United States, created a huge gap in banking capital and currency. The existing chartered banks rushed in to fill the gap with insufficiently secured notes, and in 1814 New York joined the rest of the country, excepting New England, in a general suspension. Many banks closed their doors permanently.

The New York legislature responded, not with a removal of barriers on competition, but with further restriction and revocation of charters. This of course only worsened matters, and in 1829 new cries for reform had to be answered by Governor Van Buren, who responded with a plan consisting of a "safety fund" system ostensibly patterned after the one established by the Suffolk Bank. But Van Buren's system, unlike that of the Suffolk, was neither voluntary nor competitive; membership was obligatory, and in exchange members were rewarded by the promise of a tight rein on new charters.

The safety fund differed from its Boston progenitor in several other crucial respects. It was formed from subscriptions of its members representing 3% of their individual capital stocks, and was to be drawn from to guarantee their obligations in emergencies. Since it was a common fund it made its contributors liable for one another's debts. Moreover, contributions were assessed as a percentage of capital rather than of outstanding liabilities. The result was the reverse of competition, with insolvent banks encouraged to expand credit at the ultimate expense of better capitalized ones. The public was given a hollow promise of security, while imprudence

was actually promoted.

The fund was made payable against all liabilities, but had been formulated with outstanding notes alone in mind. This inadequacy was revealed, and corrected, after the fund's near-exhaustion when 9 banks failed in 1842.[26] The fund had been invested "where it could not be reached" -- in public and long-term bonds.[27] Its members were forced to suspend payment while awaiting the fund's liquidation. "The Suffolk...aimed at profits, but what it achieved was the public good. The safety fund sought the public good... and achieved bankruptcy."[28]

The safety fund's association with the corrupt spoils system made it an object of increasing public resentment, which culminated with the crisis of 1837. That year agitation provoked repeal of the 1804 act that had prohibited private banking, and in 1838, in reaction to the favoritism that had attended the chartering of banks, the "Free Banking" Act was passed.

The 1838 act did not, in fact, allow free banking at all. It merely supplemented the safety fund banks with a new species, subject like the private banks to unlimited liability, and forced, along with them, to participate in a new bond-deposit arrangement. Note issue was conditioned upon prior purchase of state securities or other approved bond and mortgage collateral, which had to be deposited with a state controller in exchange for circulating media. The resulting stimulation of the market for state securities was not incidental: it provided a convenient substitute for financial favors previously supplied through the spoils system.

Another requirement was that participants posess at least $100,000 of paid-in capital. Under true free banking such a restriction would

have been destructive and reprehensible; but in the case of the bond-deposit system it was just as well that it existed, for it was, along with unlimited liability, the only factor checking the system's natural tendency -- which was towards mass inflation and bankruptcy.[29]

Even with these special restrictions in place the bond-deposit system was at first abused, and before 1844 26 out of 93 bond-deposit banks failed.[30] Many businessmen took advantage of the new law by establishing "petty" banks devoted exclusively to note issue; with no deposit or discount facilities, and with unlocatable redemption offices. Another problem was the artificial market created for "eligible" securities. Many of these were otherwise relatively unsaleable, and when banks holding a significant number of them failed their values proved illusory -- disappearing when officials attempted to realize upon them. Bond and mortgage collateral, representing note issues of up to 90% of their face values, were let go at heavy discounts, and many obligations went unpaid. More still than the safety fund, the bond-deposit system was guilty of "recurring to the old land-bank fallacy of confusing ultimate security with redeemability."[31] Liquidity needs were overlooked and so, in addition, were deposit liabilities. Even more disturbing was the system's inelastic or, more correctly, perversly elastic nature. The bond-deposit rule made the supply of bank notes (and, therefore, of bank-credit in general) depend upon the profitability of bond purchases. When eligible bonds commanded a premium their purchase was not worthwhile -- and the currency needs of the public, however great, would go unfulfilled. Moreover, prompt increases in circulation were precluded, for these would themselves generate premiums on the acceptable col-

laterals. Fortunately the existence of the safety fund banks side-by-side those established through bond-deposit prevented the severe rigidity of the newer system from being felt. Subsequent bond-deposit schemes were not so advantaged.

The bond-deposit system was neither reliable nor safe, and it did not protect its members from bankruptcy. That it survived at all was due to the existence of safety fund competitors and of strict rules governing liability and capitalization. Its chief merit was as a tool of public finance (which it aided by stimulating bond sales), and it was for this reason, and for no other, that it was widely adopted as a surrogate for free banking by other states and, eventually, by the federal government.

In the anti-banking west and midwest, "free banking" laws like New York's might well have represented an improvement.[32] But the adopted band-deposit systems were much shoddier than their prototype. Unhindered by strict capitalization and liability rules many of the new bond-deposit banks overexpanded and failed. Little attention was paid to the need to maintain adequate gold reserves: "Each bank was a kind of slot machine. You dropped in a state bond and a lot of bank notes came out and that was all the banking that was expected."[33]

In several of these systems the list of eligible note issue collaterals was long and undescriminating. "Acceptable" collateral (in and out-of-state bonds, municiple bonds, and mortgages) could be purchased at significant discounts. Usually these purchases were made on credit. The securities would be exchanged against state-issued bank notes according to the face value of the former. The new notes would be used to purchase more securities, also at discount

and on credit, and to pay the principal on previous loans. The cycle could continue _ad infinitum_ with scarcely any involvement of real capital. Thus the supply of bank-credit might be continuously augmented by way of gratuitous loans to bond speculators who at the same time received interest on their collateral! The principle targets for the issues of such banks were, therefore, state governments themselves. The notorious "wildcat" banks blossomed under bond-deposit legislation, arising chiefly "to meet the credit needs of states engaged in public improvements."[34] Rather than demonstrating the consequences of inadequate government supervision, as is often asserted, the wildcat banks offer a classic illustration of the depravity of monetary regulation.

War and Nationalization: Legal Tender

The Civil War brought four important monetary changes. In 1862 the Legal Tender Act was passed. This was followed by the National Banking Act in 1863, the prohibition of private coinage in 1864, and the imposition of a 10% tax on state bank notes in 1865. These actions were ostensibly designed to help finance the war. They comprised, in reality, a thinly disguised program of currency nationalization.

The Legal Tender Act marked the first national resort to paper-money finance since 1776. It created the "greenbacks," which were designed to supplement specie as a basis for credit expansion. But the supply of greenbacks could be arbitrarily increased, and their equivalence with specie, since they did not remain convertible against it, was pure fiction. The truth was revealed through the action of Gresham's law, whereby specie immediatly fled the country, and America (excepting the west coast) was placed on a paper standard. The equi-

valent of a general suspension was thus in effect, and the proper mechanism for bank-credit control, already adulterated by various state banking schemes, was entirely undermined.

An immediate effect was increasing prices. The government responded characteristically with new issues of legal tender. This destroyed all hopes that the greenbacks would remain a temporary wartime measure, and prolongued the paper standard until 1879, when greenbacks were at last made redeemable in gold.

Individuals fought the legal tender laws. However, in a series of Supreme Court hearings known collectively as the "Legal Tender Cases" the Court upheld the constitutionality of greenbacks, made their use valid in fulfilling contracts negotiated before the war, and approved their continued disbursement in peacetime. Monetary control gave way to monetary absolutism, and the Supreme Court, adopting a rubber-stamp policy, became an official refuge for swindlers.

On the west coast the greenback standard was successfully resisted. Merchants, fearing the effects of paper money on the gold industry (which had for some time been successful in prohibiting the use of bank-credit in general), agreed to accept and pay greenbacks only at discount. Specie remained in circulation, and customers who insisted on settling debts in paper money (valued at par) were summarily blacklisted. Contracts were enforced as written, and the worst consequences of inflation were avoided. Some called the western policies "secessionist."[35] In fact, they were a legitimate reaction to an intolerable abuse of federal power. "Patriotism...would have proved costly."[36] The inconvenience of a hard currency was insignificant in comparison to the damage that would have followed the

abandonment of gold.

The war did not necessitate resort to legal tender. Its finance could have been achieved, and eventually was achieved, through increased taxation and the subsequent improvement in the national credit. Depreciating paper was no more desirable in war than in peace; it was a shoddy means of extortionary finance, and in the end it proved as great a liability as it was a scandal.[37]

The National Banking Act

Another reform which, like the Legal Tender Act, had the support of Secretary of the Treasury Chase, involved the establishment of a system of nationally chartered banks designed to compete with state banks-of-issue and to eventually supplant them in providing the nation's currency.

The resulting National Banking Act was not, as some supposed, designed to promote uniformity among the nation's bank notes; competition, despite state restrictions, was already accomplishing this.[38] Chase's express desire had been to supplement the market for federal bonds. Thus he selected as his model for reform not the Boston or Louisiana systems but the New York "Free Banking" Act, which made note issues contingent upon the purchase of government paper. The essential features of the New York system were thus applied on a national basis and so, in the process, were its faults. Only the latter were magnified: whereas inelasticity had been a secondary problem in state systems of limited jurisdiction, it became a disaster once imposed throughout the entire banking system. More fundamentally, the limiting of note issue collateral to federal bonds caused the supply of bank notes to swing along with changes in the

federal bond market. Payment of government debts was made incompatible with increases in the currency supply, as the former would advance bond prices and thereby encourage banks to invest their capital in other ways. The public thus faced the unenviable choice of either suffering a currency shortage or seeing the federal debt multiply.

For a while, there had still been means for relief. State banks in certain regions, and especially in New England and New York, still maintained their circulations, and thus provided a source of elasticity. In other regions, shortages were relieved by private mints, which supplied fractional coins, convertible to specie on demand, to supplement existing bank notes.[39] The federal government realized that these competitors would limit the success of its bond-deposit scheme, and determined to eradicate them. In 1864 all private coinage was banned, and in 1865 state bank notes were forced out of circulation by a suffocating 10% tax.

Thus by the end of the war America's money system had been completely nationalized. Reserves, in the form of legal tender, could be manipulated by the treasury which, through the National Banking System, also controlled the supply of fiduciary media. Control of bank-credit now depended exclusively upon the policies of Washington.

The Federal Reserve Act

By 1900 the deficiencies of the National Banking Act could no longer be ignored. Under the bond-deposit system currency was either scarce or excessive: its supply altered with changes in the bond market. This led to numerous crises, the most recent of which, in 1893, had accompanied a severe currency shortage. In 1900 the rules

were changed. Bank capital requirements were lowered. and note issues were permitted to reflect the full face value of deposited bonds. The result was a steady inflation. New credit, once created, was not easily withdrawn. Instead, it headed for the stock exchange. The stage was set for the Panic of 1907, which proceeded upon the failure of two New York banks.

The Panic launched new demands for reform. In May, 1908, the Aldrich-Vreeland Act was signed amending the National Banking Act. It allowed the national banks to issue "emergency money" based on commercial paper, and thus provided some improvement in elasticity.

The Aldrich bill satisfied neither the public nor the banking community. The public felt further regulation necessary to destroy the "money trust." Wall Street saw things differently. Its power, already eroding at the turn of the century, had been badly damaged by the Panic, and anti-banking sentiments further threatened its prestige. The New York bankers seized upon regulation as a means to regain control while silencing their enemies. Both results were realized ingeniously in the Federal Reserve Act.

The Act, passed in 1913, created the Federal Reserve System, which pretended to improve upon the provisions of the Aldrich bill. In fact, it undermined the positive contributions of its predecessor, while inaugurating a program for complete centralization of credit policy. It thus supplemented the nationalization of currency begun during the Civil War, removing the last traces of independence and competition from the banking system.

The Federal Reserve System consisted of 12 regional Reserve Banks controlled by a Washington-based Federal Reserve Board. The Federal

Banks were charged with repleneshing member bank reserves*, which they did by supplying Federal Reserve Notes in exchange for rediscounted commercial paper. The rediscount rate, which would broadly influence interest rates throughout the system, was established, along with reserve ratios and other restrictions, by the Board, which was itself dominated by the powerful New York Federal Reserve Bank. The decentralization of the system, apparent in the absence of a single, central bank, was a mirage: control of bank-credit was firmly in the hands of Washington, except on occasions when New York's influence was stronger.

The authors of the Federal Reserve Act payed much lip-service to the erroneous real-bills doctrine, but had in fact designed a system which removed all possibility of control based upon "real-bills" (really, competitive) influence ~~considerations~~. Federal Reserve Notes were made equivalent to gold in bank reserves. The proceeds of every rediscount were thus treated, not as additional liabilities, but as increased assets! The immediate effect of rediscounting was thus the same as if new gold had flowed into member bank reserves. Moreover, uniform procedure was enforced, so that each session of rediscounting led to concurrent increases of reserves throughout the system, thus inducing multiple expansions of credit. All internal controls had been dismantled; there was no competition for reserves, no self-regulation, and no concern for liquidity. Only the Reserve Banks themselves had reason to be concerned about gold -- and this would happen only once pressure was felt from abroad. In the meantime, arbitrary bank-credit expansion (or contraction) could proceed on the basis of the slender gold holdings of the Reserve Banks.

*All National banks had to join. Later provisions made membership by state banks practically obligatory.

Any threat to the liquidity of the latter would send the entire system tumbling into disaster, and this threat would be greatest on precisely those occassions when credit was most desperately needed.

The War Years

For a while, disaster was avoided. In its first years the Federal Reserve pusued an active, easy-money policy. Rediscount rates were often set at levels lower then prevailing market rates; reserve requirements were reduced, and the range of collateral accepted for rediscount was extended to include real-estate and government bonds.

These policies should have led to trouble. But war had begun in Europe and capital (represented by gold) flowed to America despite low rates of interest. Thus Federal Reserve gold holdings were strengthened, and the system's liquidity was protected.

When America entered the war, Washington joined the easy-money crusade. New credit, which formerly went via the call market to the stock exchange, was now also used to encourage purchase of Liberty Bonds. Low rediscount rates were only a part of this strategy. Another method was the bond-support policy, which engaged the Federal Reserve Banks in their first open-market purchases of government bonds. Thus the market for bonds was stimulated directly, and the rate of interest they offered could be reduced. Federal Reserve purchases of government bonds soon rivaled those of commercial paper, and the "real-bills" camouflage was silently abandoned. As bond holdings increased, open-market operations became the most influential force affecting market interest rates, and eventually replaced

direct adjustments of the rediscount rate as the chief instrument of Federal Reserve control.

The Boom

In 1918 the war ended. Gold returned to Europe, but the treasury, still anxious to minimize the cost of its debt, urged the Federal Reserve to continue open-market purchases. Prices continued to rise, and the gold outflow worsened. Funds accumulated in government bonds and stock exchange collateral. The banking system had become dangerously illiquid, but it did not acknowledge this liquidity since new reserves, in the form of Federal Reserve Notes, were readily available. The Reserve System, however, could not rediscount forever: its own reserves, made up solely of gold, were rapidly dwindling. Danger signals were ignored until the last day of 1919, when rediscount rates were suddenly raised to record levels.[41] The result was a sudden contraction. The stock market abruptly collapsed, as did prices for federal bonds. Bankers searching for their assets could not find them, and numerous banks closed their doors.

The deflationary crisis of 1920-21 had been severe, but short. There was a quick return to optimism, and Federal Reserve restraints were generously loosened. The range of acceptable lending collateral was widened to include foreign government bonds, domestic municiple bonds, and urban mortgages.[42] The Reserve System once again stood ready to supply needed paper reserves. Left to their own means, bankers could not have afforded to extend credit on such questionable and illiquid securities. But encouraged by the government, they did so with fervor.

After 1920 the policy of setting the rediscount rate below market

rates -- and below the call money rate -- was formally ended. Banks could no longer borrow from the Federal Reserve in order to relend at a profit. But open-market purchases of government securities accelerated. The 12 Reserve Banks had learned to coordinate these purchases, thus encouraging their members to reduce lending rates and to expand credit as excessively as they had when lower rediscount rates prevailed.[43]

The new credit thus created "was not needed by commerce, and commerce did not take it."[44] Instead, it went into long-term investments and to the stock exchange. By 1927 a strong bull market had developed. Prudent policy demanded restraint. Warnings were delivered, but were once again ignored. Instead, the Federal Reserve Board added heat to the fire. They lowered rediscount rates once again, and authorized vast new purchases of government paper.[45] The Chicago Federal Reserve Bank, fearing a repeat of the 1920 collapse, resisted, but was overridden by the Board.[46] So much for decentralization.

Trouble came in 1928. It began when the Bank of France, which had suspended along with the Bank of England, restored payment and thus stimulated foreign demands for gold which had been put to refuge in America. Federal Reserve officials, concerned about gold losses, staged a policy about-face: government securities were sold off, and market interest rates began to abruptly increase. Credit expansion "virtually ceased around April 11, 1928."[47] Yet the boom persisted. Credit to supply it was now drawn off from more legitimate uses. "The public had taken the bit in its teeth",[48] and money rates soared to record levels. At this stage Federal Reserve policy "was too easy to

break the speculative boom, yet too tight to promote healthy economic growth."[49] Collapse was only a matter of time. The bears appeared on October 24, 1929, and the Great Depression had begun.

The conditions which led to the stock market boom and crash could not have arisen under free banking. In an unregulated system, reserves would have consisted of gold -- not of paper. No central bank, or system of banks, would have existed, and none would have been necessary or desirable. Bankers would have had reason to be concerned about liquidity. They would not have lent excessively to the government; they would not have made routine purchases of questionable foreign bonds; and they would not have instigated, or financed, a stock market boom. Interest rates would have been established by the market, not by Washington or New York. There could not have been an "easy-money" policy with uniform lowering of interest rates and multiple expansions of bank-credit; and expansion by a single bank, based on an unjustified lowering of its lending rates, would soon have driven it to suspension.

The crash, and the prolongued depression that followed[50], were products of government interference with the banking system. That the marketplace, and especially the gold standard, were subsequently blamed does not alter or controvert the truth.

The Outlawing of Choice

In the years of the Great Depression the last vestiges of monetary freedom were removed. The government confiscated all monetary gold during the 1933 bank holiday. Gold clauses in private and government contracts were subsequently abrogated, and in January of 1934 the official value of gold was raised to $35 per ounce. These operations netted the government nearly $3 billion in profit, and

marked the practical end of the gold standard.

The Supreme Court gold clause decisions were examples of undisguised despotism. In the conclusive decision Chief Justice Charles Evan Hughes opined that "Parties cannot remove their transactions from the reach of dominant constitutional power by making contracts about them." "The contention", he continued, "that these gold clauses are valid contracts...proceeds upon the assumption that private parties...may limit (government's monetary) authority"[51]--namely, the authority to undermine private contracts! The repudiation of gold clauses in government contracts could hardly be defended by way of such reasoning, but this proved no great hurdle: in Perry v. U. S. the Court determined that it would be "unecessary" and "undesirable...for the Court to undertake to say that the obligation of the gold clause in government bonds is greater than in the bonds of private individuals."[52] Where "implied power" was lacking, precedent could always be invoked.

The official Court position on banking was formally revealed 25 years earlier in Noble State v. Haskell, 112 years after the Constitutional Convention. In this decision Justice Holmes made it plain that the right to engage in banking:

> is not answered by citing authorities for the existence of the right at common law...We cannot say that the public interests...are not sufficient to warrant the State in taking the whole business of banking under its control. On the contrary, we are of the opinion that it may go on from regulation to prohibition except upon such conditions as it may prescribe.[53]

Finally, the Federal Reserve System itself was rendered officially immune to legal action in a decision by the Eighth Circuit Court, which determined that "suitors lacked standing -- whether as citizens,

taxpayers, or investors in government securities -- to challange the constitutionality of Federal Reserve money management authority."[54]

The monopoly in money was sponsored, not by necessity, but by compulsion. Compulsion was needed to destroy the private bankers; it was needed to eliminate the Suffolk system; it was needed to insure acceptance of legal tender; and it was needed to force banks to cooperate with the Federal Reserve Board. Compulsion made possible the confiscation of gold, the abrogation of private contracts, and the repudiation of government ones. Freedom of choice played no part in the development of America's currency system; in the realm of money free enterprise was summarily overthrown.

. . .

IV. CONCLUSION

A frequent line of inquiry among modern-day monetary economists regards how central banking institutions might promote stability and prevent economic crises and depressions. The answer is that they cannot; they are in fact responsible for these events, and to the extent that their activities serve to restore order they do so only by correcting dangerous policies promoted by central bank authorities in the first place.

The achievement of control of the supply of bank-credit requisite to avoidance of the trade cycle is not only unlikely under central banking, it is materially impossible. Under free banking the supply of bank-credit automatically adjusts according to the availability of real capital goods and savings. Unwarranted expansions or contractions of bank-credit are punished by the mechanism of competition. Under central banking no such mechanism exists, and the appeal to liquidity is confounded by the possibility of a "vicious cycle" of credit expansion. Moreover, central bank authorities are loath to pursue responsible control of bank-credit in the first place, being instead determined to initiate, at the instigation of the treasury, positive programs of inflation in the name of which all means of control, individual or institutional, have been dismantled. Thus the gold standard was judged, correctly, as incompatible with central banking -- only the former was abandoned, while the latter was permitted to endure in the interest of statism and war. The greatest victim of this program has been capitalism itself, which has utterly eroded as a result of the fiction that it cannot function without interference by the State.

The outright dismantlement of the Federal Reserve System is neither necessary nor recommended. The sudden elimination of the established system would not, in the short run, do justice to the concept of monetary freedom. What is needed instead is the comprehensive repeal of laws designed to prevent competition in currencies. The required reforms have been outlined by Dr. Hayek: the exclusive right to note issue of government must be done away with. Commercial banks, and foreign commercial and central banks, must be permitted to compete with the Federal Reserve System in note issue. Laws prohibiting the establishment of current accounts in foreign or private currencies must be repealed. So must laws that prohibit branch banking at any level. Exchange controls must be dismantled, and the law must be confined to its proper role of enforcing private contracts and penalizing counterfeiters. It is mistaken to believe that the authorities in control of our present centralized system can be pursuaded to act responsibly[54]: what is required is a mechanism that forces them to do so or to perish. That mechanism is competition.

Tyrrany begins with the elimination of choice, and can only be dissolved by its restoration. The true test of the efficacy of any monopolized industry or institution is its ability to face the threat of substitutes.

NOTES

(Numbers in Parentheses refer to Works Listed in the Bibliography)

[1]In Choice in Currency (14) and Denationalization of Money (15).

[2]Authors sympathetic towards free banking included William Graham Sumner, H. C. Carey, Herbert Spencer, Richard Hildreth, Horace White, Walter Bagehot, and J. E. Horn. More recent free banking advocates include Ludwig von Mises, Vera Smith, Benjamin Klein, and F. A. Hayek.

[3]The word "natural" was first employed in this connection by Ricardo and later by Wicksell. It was later adopted by von Mises in his Theory of Money and Credit (30). Professor Hayek prefers the expression "equilibrium" rate of interest.

[4]This "Austrian" theory of the trade cycle was developed from the notions of Wicksell (44) by von Mises (29,30) and was given a more complete exposition in Prof. Hayek's Monetary Theory and the Trade Cycle (16) and Prices and Production (17). A good summary appears in The Austrian Theory of the Trade Cycle and Other Essays (8), edited by Richard Ebeling.

[5]The practice of issuing notes or checks in the name of a competing institution would, of course, constitute counterfeiting and would be expressly prohibited. As for all banks issuing identical paper, and thus initiating a limitless inflation, the scenario in no way corresponds with any realistic development under open-competition, and is rather the invention of certain economists who have misconstrued both the theory and the history of competitive note issue. (On this see Benjamin Klein, "The Competitive Supply of Money" (21)).

[6]Lloyd Mints, in his History of Banking Theory (28) completely fails to recognize the relevance of the real-bills doctrine under competitive circumstances. Thus he incorrectly concludes that it has no merit whatsoever.

[7]Bray Hammond, Banks and Politics in America from the Revolution to the Civil War (12), p. 45. The first president of the Bank of New York was Alexander Hamilton.

[8]Ibid., p. 185.

[9]Gerald T. Dunne, Monetary Decisions of the Supreme Court (7), p. 16.

[10]Davis Rich Dewey, Financial History of the United States (6), p. 127.

[11]Hammond, Banks and Politics, p. 611.

[12]Ibid., p. 185.

[13]Ibid., p. 67.

[14]Ibid., p. 187.

[15]Harry E. Miller, Banking Theories in the United States Before 1860 (27), p. 62.

[16]Dewey, p. 148.

[17]Ibid.

[18]Ibid., p. 151.

[19]Richard Hildreth, Banks, Banking, and Paper Currencies (18), p. 81.

[20]Hammond, Banks and Politics, p. 260.

[21]D. R. Whitney, The Suffolk Bank and its Redemption System (43), p. 4.

[22]Horace White, Money and Banking Illustrated by American History (42), p. 329.

[23]Wilfred S. Lake, "The End of the Suffolk System" (24), p. 191.

[24]Hammond, Banks and Politics, p. 683.

[25]Ibid.

[26]L. Carroll Root, "New York Bank Currency: Safety Fund vs. Bond Deposit" (36), p. 5.

[27]White, Money and Banking, p. 340.

[28]Hammond, Banks and Politics, p. 562.

[29]For a time specie reserves of at least 12½% were also required. Strict penalties imposed for non-payment might also have helped, had their enforcement not been confounded by a long legal battle regarding the constitutionality of the bond-deposit banks which caused them to struggle for 8 years without judicial recognition. On this see Bray Hammond, "Free Banks and Corporations" (13), p. 193.

[30]Root, p. 18.

[31]Miller, p. 148.

[32]In Canada, a free banking (bond-deposit) law was adopted. Only competition was already fairly well in place, and the established banks "crowded the free banks to the wall." The Canadian free banking act was repealed in 1866.(White, Money and Banking, p. 360.)

[33]Horace White, "National and State Banks" (42), p. 8.

[34]Hammond, Banks and Politics, p. 627.

[35]Richard A. Lester, Monetary Experiments: Early American and Recent Scandinavian (25), p. 169.

[36]Ibid.

See also Simon Newcomb, Our Financial Policy During The Southern Rebellion.

[37]On the role of legal tender in the finance of the Civil War see Dewey, chapter XIII, and White, Money and Banking, pp. 161-165.

[38]White, Money and Banking, p. 408.

[39]A short survey of private coinage firms is given in Brian Summers' "Private Coinage in America" (39).

[40]Gabriel Kolko, The Triumph of Conservatism: A Reinterpretation of American History, 1900-1916 (22), chapter 9.

[41]Milton Friedman and Anna Jacobsen Schwartz, A Monetary History of the United States, 1867-1960 (10), p. 228.

[42]Ibid., p. 248.

[43]Ibid., p. 296.

[44]Benjamin M. Anderson, Economics and the Public Welfare: An Economic and Financial History of the United States, 1914-1946 (1), p. 174.

[45]That low rates were maintained was largely due to the Bank of England's attempt to engage all of the Atlantic nations in a cooperative inflation in order to reduce its gold losses resulting from suspension. Only America's Calvin Coolidge consented in order, as he put it, "To help the farmer." (Anderson, Economics and the Public Welfare, p. 182.) The new money went into securities.

[46]Anderson, Economics and the Public Welfare, p. 135.

[47]Ibid., p. 186.

[48]Ibid.

[49]Friedman and Schwartz, p. 241.

[50]For a thorough analysis of the role of Federal Reserve policies in the depression see Murray N. Rothbard, America's Great Depression (37) and C. A. Phillips, T. F. McManus, and R. W. Nelson, Banking and the Business Cycle (34).

[51]Quoted in Dunne, pp. 90-91.

[52]Ibid., p. 95.

[53]Ibid., p. 84.

[54]James Willard Hurst, A Legal History of Money in the United States, 1774-1970 (20), p. 237.

[55]In Lombard Street (3), Walter Bagehot recognized the superiority of competing banks holding seperate reserves (pp. 65-67), explained that the concentration of reserves in the Bank of England was the result of government intervention (p. 69), and addressed the bulk of

his book to an attempt to make this inherently unstable system workable. "I propose," he explained, "to retain this system because I am quite sure that it is of no manner of use to alter it" (p. 310). Bagehot rightfully noted that the sudden elimination of the Bank of England would disasterously affect England's credit. He did not consider the less drastic approach of simply subjecting the Bank's directorship to competition by repealing the laws that had originally forbidden the joint-stock banks of the London area from issuing their own notes.

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